

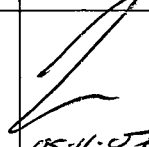
5/42

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	24372
<b>Description:</b> Wearplate	<b>Part Number:</b>	D2577-3
<b>Dwg:</b> D2577 Rev. E	<b>Qty:</b>	50
		Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller <b>Dwg not required</b>	JA	05.09.29	50
2	PG	Issue P/O: 2008744 <b>Email or Ship DXF file to vendor</b> Laser Cut per Dwg D2577 flat pattern D2577-101 <b>Material release note required</b>	AP	05/09/30	50
3	RG	Receive and Inspect for transit damage <b>Ensure that material release note is attached</b>	CL	05/10/12	50 42 PTO
4	QC6	Inspect dimensions per template D2577-101T1	Z	05.11.07	42
5	GB	Deburr if necessary	N/A		
6	GB	Form on brake as per Dwg D2577 using DT8155 and DT8179 <b>Identify as D2577-3</b>	SB	05/11/08	42
7	QC5	Inspect work to Step 6	Z	05.11.08	42
8	WS	Weld hard surface using DT8308A & DT838B as per Dwg D2577 <u>Qty</u> <u>Description</u> <u>Batch</u> A/R                      7560 Hardcoat Rod                      M19100	CPL	05.11.30	42
9	QC9	Inspect weld	MA	05/12/01	42
10	FP	Powder Coat Grey (Ref.4.3.5.6) per QSI 005 4.3	FC	05.12.20	42
11	QC3	Inspect Powder Coat	ML	05.12.21	42
12	FP	Identify and Stock	MM	05.12.21	42
13	AC	Cost / part	LI	05.12.21	42
14	DC	Close W/O Inspect Level 21	DD	05/12/21	42

Rev	Date	Change	Revised By	Approved
A	96.08.20	New Issue		
B	98.04.15	Changed finish detail, changed forming sub-contractor	KB	
C	99.02.02	Added inspection levels, Jig numbers	DM	
D	00.10.02	Reformat	EC	
E	01.06.08	Powder coat in house and went back to laser cut.	EC	
F	02.09.24	Re-format; Incorporated D2577-101/-13	KJ RF	JS

RELEASED  
02/10/02 RF

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
0510-20	2+3	Took 8 for w/o 24519 D34601 please adjust costs in MIO	le	0510-20	8	le	 05-11-07

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA:  Date: 05/11/07

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Sep 28, 2005  
03:40 pm

Work Order No : 0024372  
Project Name : D2577-3  
Project For : WK542  
Work Order Type : Main  
Main WO Number :  
House Part Number : D2577-3  
Description : Wearplate Aft  
Manufactured : Yes  
Amount Req'd : 50  
Amount Done : 0  
Start Date : 09-28-05  
Est Finish Date : 10-20-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Mark Up : 0.000%  
Actual Mark Up : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



New Zealand Steel Limited  
Glenbrook, South Auckland  
Postal: Private Bag 92121, Auckland, New Zealand  
Telephones: (09) 375 8999 / 375 8111 Auckland  
(09) 235 8089 / 235 3535 Wairakei  
Fax: (09) 375 8959

# TEST CERTIFICATE

Ref: 5078/21768

CUSTOMER	Wilkinson	P50128DI003	SPECIFICATION	ASTMA1008 CS Type A	CERTIFICATE No	TC109561																		
CUSTOMER O/N	90-21N-540		PRODUCT	CRA WIDE COIL	PAGE	1 of 1																		
MILL O/N	471159		DIMENSIONS	0.055" x 48" x Coil	DATE	23 April 2005																		
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT										MECHANICAL TESTS (TEST SPECIFICATION - ASTMA370)												
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE( )	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH
		x100													x10000	x100		180°			G.L.=	HRB	( )	(feet)
R9-457097-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1					Good				46		1562
R9-457098-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1					Good				46		1483
R9-457099-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1					Good				46		1562
R9-457100-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1					Good				46		1496
R9-457101-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1					Good				47		1562
R9-457102-00	640590	4	TR	20	13	17	12	17	20	1	8	1	1					Good				47		1555

YIELD	GAUGE LENGTH (G.L.)	PLASTIC STRAIN RATIO (r)	IMPACT TEST	CARBON EQUIVALENT VALUE (CE)
(A)=0.2% PROOF STRESS	(A)=200mm (C)=80mm (E)=2"	(A)=r0 (C)=r45	(A)=5mm x 5mm (D)=2.5mm x 10mm (E)=5mm x 10mm	(A)=C+Mn/6 (B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15 (C)=C+Mn/6+Si/24 (D)=
(B)=LOWER YIELD STRESS	(B)=50mm (D)=5.65 x Su (F)=8"	(B)=r90 (D)=(r0+r90+2r45)/4		

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Satish Misra*  
QC METALLURGIST

16 ga crms

Date: Thursday, 11/17/2005 12:07:44 PM  
 User: Linda Lacelle

## Process Sheet

<b>Customer</b>	: CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b>	: WEARPLATE
<b>Job Number</b>	: 24372		
<b>Estimate Number</b>	: 10298		
<b>P.O. Number</b>	:	<b>Part Number</b>	: D25773
<b>This Issue</b>	: 11/17/2005	<b>S.O. No.</b>	:
<b>Prsht Rev.</b>	: NC	<b>Drawing Number</b>	: D2577 REV E
<b>First Issue</b>	: / /	<b>Project Number</b>	:
<b>Previous Run</b>	:	<b>Drawing Revision</b>	: E
	<b>Type</b> : PURCHASED PARTS	<b>Material</b>	:
<b>Written By</b>	:	<b>Due Date</b>	: 11/30/2005
<b>Checked &amp; Approved By</b>	:	<b>Qty:</b>	50
<b>Comment</b>	: Est: F 02.09.24 Re-format; Incorporated D2577-101/-13 KJ/ RF	<b>Um:</b>	Each

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	PG	PURCHASING
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**Comment:** PURCHASING

Issue P/O: \_\_\_\_\_  
 Email or Ship DXF file to vendor  
 Laser Cut per Dwg D2577 flat pattern D2577-101  
 Material release note required

2.0	D25773F	Wearplate Aft
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3.0	PACKAGING 1	PACKAGING RESOURCE #1
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**Comment:** PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage  
 Ensure material release note is attached

4.0	QC6	DIMENSIONAL CHECK
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**Comment:** DIMENSIONAL CHECK

Inspect dimensions per template D2577-101T

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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**Comment:** SMALL & MEDIUM FAB RESOURCE 1

Deburr

6.0	BRAKE NC	NC BRAKE
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**Comment:** NC BRAKE

1-Form on brake as per Dwg D2577 using DT8155 and DT8179  
 2-Identify as D2577-3

Date: Thursday, 11/17/2005 12:07:45 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 24372

Part Number: D25773

Job Number:



Seq. #:	Machine Or Operation:	Description :
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7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld hard surface using DT8308A & DT8308B as per Dwg D2577

Qty	Description	Batch
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A/R	7560 Hardcoat Rod	
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9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

10.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

13.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion



# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Nov 08, 2005  
11:51 am

Work Order No : 0024372  
Project Name : D2577-3  
Project For : WK542  
Work Order Type : Main  
Main WO Number :  
House Part Number : D2577-3  
Description : Wearplate Aft  
Manufactured : Yes  
Amount Req'd : 50  
Amount Done : 0  
Start Date : 09-28-05  
Est Finish Date : 10-20-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Margin : 0.000%  
Actual Margin : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	611.49	100.00	0.00	611.49
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	611.49	100.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	611.49			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	( -611.49)